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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,132	05/24/2001	Thomas Juestel	PHDE 000084	1103

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EXAMINER

HARPER, HOLLY R

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 08/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,132

Applicant(s)

JUESTEL ET AL. *C.N*

Examiner

Holly R. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. ____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

The Amendment, filed on 5/5/2003, has been entered and acknowledged by the Examiner.

Claims 8 and 9 have been added.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartai (USPN 5,041,762) in view of Opitz et al. (USPN 5,744,233) hereinafter "Opitz".

In regard to claims 1-5, the Hartai reference discloses a low-pressure discharge lamp (Column 2, Lines 12-13) with an inner bulb and an outer bulb surrounding the inner one (Figure 1, Elements 2 and 3). The inner bulb can be filled with a gas and mercury (Column 3, Lines 38-39), made of transparent and translucent materials (Column 2, Lines 47-58), and the inner wall can be coated with phosphor (Column 3, Lines 31-33). Phosphor can be distributed on the surface of the outer bulb (Column 4, Lines 8-10). The outer bulb is made of synthetic translucent resin (Column 2, Lines 14-16). The Hartai reference does not specify the type of phosphor used in the lamp. The Opitz reference teaches a lamp (Column 1, Lines 7-11) with

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coated phosphors comprised of ZnS:Cu,Au,Al; ZnS:Ag; or CaS:Eu (Column 3, Lines 29-33).

The coated phosphors are protected against chemical attack and are liquid and readily dispersible (Column 2, Lines 8-9). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the specified coated phosphors, as taught by Opitz, on the outer bulb.

The recitation "comprising means for generating and maintaining a low-pressure mercury gas discharge" has not been given patentable weight because is considered an intended used recitation. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

In regard to claim 6, the Hartai reference discloses a lamp with the inner bulb being tubular and bent (Figure 1).

In regard to claim 7, the Hartai reference discloses a lamp with the inner bulb being tubular and coiled (Figure 1).

3. Claims 1, 2, and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soules et al. (USPN 5,959,405) in view of Opitz et al. (USPN 5,744,233) hereinafter "Opitz".

In regard to claims 1 and 2, the Soules reference discloses a low-pressure discharge lamp (Column 1, Line 9-10) with an inner bulb and an outer bulb surrounding the inner one (Figure 1, Elements 10 and 12). The envelope can be filled with a gas and mercury (Column 2, Lines 35-41), made of transparent and translucent materials (Column 2, Lines 36), and the inner wall can be coated with phosphor (Column 3, Lines 6-10). Phosphor can be distributed on the surface of the outer bulb (Column 3, Lines 6-10). The Soules reference does not specify the type of

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phosphor used in the lamp. The Opitz reference teaches a lamp (Column 1, Lines 7-11) with coated phosphors comprised of ZnS:Cu,Au,Al; ZnS:Ag; or CaS:Eu (Column 3, Lines 29-33). The coated phosphors are protected against chemical attack and are liquid and readily dispersible (Column 2, Lines 8-9). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the specified coated UV-A phosphors on the outer bulb, as taught by Opitz, to protect against chemical attack.

In regard to claim 4, the Opitz reference discloses that the phosphor layer can be ZnS:Ag (Column 3, Lines 29-33).

In regard to claim 5, the Opitz reference discloses that the phosphor layer can be ZnS:Cu,Au,Al or CaS:Eu (Column 3, Lines 29-33).

In regard to claim 6, the Soules reference discloses a lamp with the inner bulb being tubular and bent (Figure 1).

In regard to claim 7, the Soules reference discloses a lamp with the inner bulb being tubular and coiled (Figure 1).

In regard to claims 8 and 9, the Soules reference discloses that the outer bulb is pear-shaped (Figure 1).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Konings et al. (USPN 5,105,122) discloses a low-pressure mercury lamp with a pear shape and luminescent coatings.

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5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Response to Arguments

6. Applicant's arguments filed 5/5/2003 have been fully considered but they are not persuasive.

7. Regarding applicants claim that Hartai does not disclose a bulb, examiner respectfully disagrees. Webster defines a bulb as a glass envelope enclosing the light source of an electric lamp or such an envelope together with the light source it encloses. ~~The matrix disclosed by~~ Hartai encloses the light channel and therefore is a bulb.

8. Regarding applicants claim that Hartai does not disclose an inner bulb surrounded by an outer bulb, examiner respectfully disagrees. The claimed limitation is an outer bulb surrounding an inner bulb. This is clearly shown by Figure 2 and the Hartai reference discloses that the light

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channel can be a gas discharge tube (Column 2, Lines 55-60). Therefore, Hartai does not teach away from a bulb-in-bulb design.

9. Regarding applicants claim that Opitz does not teach that the disclosed phosphors would be suitable for the absorption of UV-A, examiner respectfully disagrees. Opitz teaches the use of UV-A phosphors, specifically those found in the applicants claim. The phosphors claimed by Opitz would therefore be suitable for the absorption of UV-A.

10. Regarding applicants claim that there is no reason to choose the UV-A phosphors taught by Opitz, examiner respectfully disagrees. Opitz teaches that the coated luminescent powders including ZnS:Cu,Au,Al; ZnS:Ag; or CaS:Eu (Column 3, Lines 29-33) are protected against chemical attack and are liquid and readily dispersible (Column 2, Lines 5-10). The coated phosphors offer good mechanical and optical properties. They also improve abrasion resistance (Column 2, Lines 18-27). Although additional phosphors besides the UV-A phosphors are disclosed by Opitz, the motivation as listed still suggests the use of any of the phosphors. Nothing in the prior art teaches away from the use of the UV-A phosphors.

Hartai discloses that some ultraviolet light is absorbed (Column 4, Lines 15-18) and additional layers can be added to remove more short wave and ultraviolet light (Column 4, Lines 40-45). Hartai is establishing an understanding that removing UV radiation is beneficial.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Harper whose telephone number is (703) 305-7908. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Holly Harper
Patent Examiner
Art Unit 2879



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